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IMPACT OF LACTATION MANAGEMENT EDUCATION ON HEALTH PROFESSIONALS
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ABSTRACT

Background: **In 1992, Kenyatta National Hospital Lactation Management Education Centre (KNH LME) was establised in collaboration with the University of Nairobi (UoN) and the Ministry of Health (MoH). The aim of the programme was to train multidisciplinary teams of health professionals in lactation management education.**
Objective: **To determine the performance of doctors, nurses and nutritionists on lactation management education, before and after exposure to the programme.**
Design: **A descriptive analysis of the pre and post test performance of doctors, nurses and nutritionists on lactation management education.**
Subjects**: Two hundred and twenty nine health professionals, comprising one hundred and thirty eight nurses, fifty six nutritionists, and thirty five doctors.**
Results**: The performance of all participants improved significantly (p = <.000) between the pre and post test scores from a mean score of 54.0% in pre test, to a mean score of 72.0% in the post test.**
Conclusion**: Adequate lactation management education content should be included in all preservice medical curricula for all health professionals. In addition, an update of emerging issues in lactation management education must be sustained, in all health institutions as part of continuing education for inservice health professionals.**

INTRODUCTION

Health professionals have a major influence on the incidence and duration of breastfeeding. The advice they give to mothers and contribution to health facility policies and practices impact the time of initiation of breastfeeding, rates of exclusive breastfeeding, duration of breastfeeding, prevention and management of common breastfeeding problems, and the appropriate time to introduce complementary foods to the infant(1-4).

Contemporary studies conducted on knowledge, attitude and practice (KAP) of breastfeeding and weaning among health professionals have repeatedly shown that they lack adequate knowledge and skills to efficiently promote, protect and support breastfeeding and weaning issues(3-6). The main reasons given for the existing gaps in knowledge and skills is inadequate provision of time for breastfeeding and weaning content coverage in medical curriculas and lack of inservice updates(7-9).

In 1991, a Lactation Management Education (LME) course was held at Wellstart in San Diego, Califomia. The course had representation from multidisciplinary health professional teams from developing countries, Kenya being one. The goal of the Wellstart Programme was to train teams from teaching hospitals in developing countries to become lactation specialists, so that they are able to function as models in training and also facilitate replication of similar programmes in their own country's teaching hospitals(8).

The Kenyan team that participated in the Wellstart Training Programme in 1991, comprised a paediatrician, two nutritionists and three nurses. To meet the objective of the course, the team, developed a proposal, to be used to implement a LME programme in this country. The theoretical framework in Table 1 was used to define the problems of breastfeeding and weaning in Kenya, and to subsequently develop a curriculum to comprise the courses listed in Table 2.

Table 1

Programme diagram

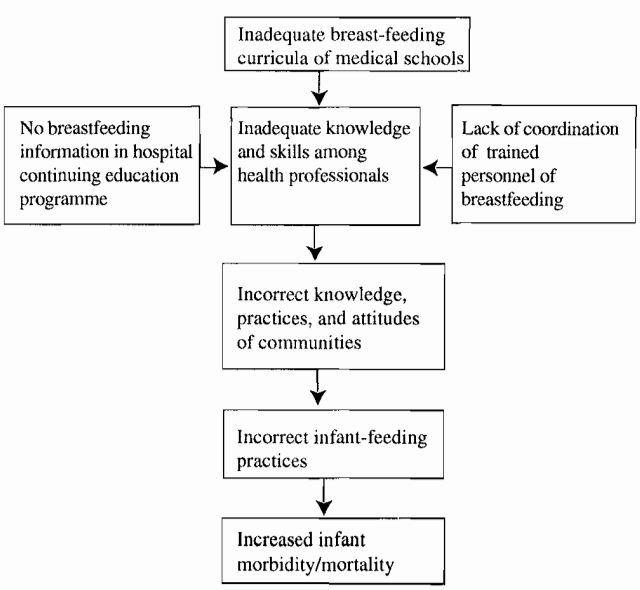

Table 2

Lactaction management course topics

1. Child survival
2. Anatomy and physiology of the breast
3. Trends and cultural practices of breastfeeding and weaning in Kenya
4. Biochemistry and immunology of breastmilk
5. History taking
6. Counselling
7. Counselling in relation to breastfeeding
8. Common breast problems
9. Successful breastfeeding
10. HIV counselling
11. Growth and monitoring
12. Complementary feeding
13. Suckling problems
14. Maternal nutrition
15. Drugs and lactation
16. Sick and low birth weight infants
17. Family planning
18. Mothers with special problems
19. The working mothers support groups
20. Mother-to-child HIV transmission and breastfeeding
21. National Infant feeding policy
22. The Kenya Code of marketing breastmilk substitutes

In 1992, Kenyatta National Hospital Lactation Management Education Centre (KNH LMEC) was established in collaboration with Kenyatta National Hospital (KNH), University of Nairobi (UoN), and the Ministry of Health(MoH). The goal of the programme was to train multidisciplinary teams of health professionals in Lactation Management. The certificate course is held three times in a year for a duration of two weeks. The teaching is facilitated by the team, and other health professionals trained in lactation management. Since the centre was established, 385 health professionals have been trained, and no comprehensive evaluation of the programme has been done.

This study analyses the performance of the pre- and post-tests, administered to all course participants, and reveals the impact of the programme since inception.

MATERIALS AND METHODS

Study design: This is a descriptive analysis of the performance of doctors, nurses and nutritionists who have attended the lactation education management course at Kenyatta National Hospital.

Sample population: The sample size for this analysis comprise 229 (59.4%) health professionals out of 385 trained. This include the analysis of 138 (60.2%) nurses, 56 (24.5%) nutritionists and 35 (15.3%) doctors.

Description of pre and post test: The pretest given to the course participants, is the same as the post test. The questions are formulated from each topic content taught during the training, and comprise of true and false questions. Each question is worth one mark, totalling a hundred per cent.

RESULTS

The test performance scores were graded using the marking scale utilised by the University of Nairobi Medical School. The scale categorises ≤ 49% as fail, 50% - 64% as a pass, 65% - 74% as a credit, and 75% - 100% as a distinction(11). The results of the pre and post test were analysed and presented as an aggregate performance of the total group of health professionals and a disaggregate of each group of health professionals. The paired sample student t - test was used to show the significance of the performance between the pretests and the post tests.

Distribution of test scores by health professionals: Table 3 shows the distribution of scores obtained by health professionals. The performance of the pretest for those with a score of <49 improved significantly and of those with a score of between 75 - 100.

Table 3

Distribution of pre and post test scores of health professionals

Score	Pre - test		Post - test	
	No.	%	No.	%
< 49	70	30.6	10	4.3
50-64	100	43.7	47	20.5
65-74	54	23.5	74	32.3
75-100	5	2.2	98	42.9
Total	229	100	229	100

Performance of health professionals in pre and post tests: Table 4 shows the distribution of the Pre and Post test mean scores of all health professionals. The scores were significantly higher in the post test compared to pretest. The candidates pretest scores were much lower compared to the post test scores. The paired sample t - test of pre and post test showed a significant difference ($p < .000$) in performance scores. The mean for pretest performance was 54.7 compared to 72.0 for the post test.

Table 4

Mean pre and post test scores of health professionals.

Health professionals	No.	Mean pre-test Score (%)	Mean post-test Score (%)
Nurses	138	52.8	70.1
Nutritionists	56	53.0	69.4
Doctors	35	58.4	76.5
Total	229	54.7	72.0

Nurses performance in pre and post tests: The nurses performance is illustrated in Table 5. Significant improvement is seen in post-test scores. There were 47 (34.1%) nurses with a score of <49 in pretest, compared to six (4.3%) in the post test. In the pretest, only two (1.4%) nurses had a score of 75 - 100 compared to 56 (40.6%) in the post test.

Table 5

Distribution of pre and post test scores of nurses

Score	Pre-test		Post -test	
	No.	%	No.	%
<49	47	34.1	6	4.3
50-64	54	39.1	28	20.3
65-74	35	25.4	48	34.8
75-100	2	1.4	56	40.6
Total	138	100	138	100

Nutritionists performance in pre and post tests: The nutritionists performed significantly better in the post test. Table 6 shows that there were 16 (28.6%) nutritionists who had a score < 49 in the pre test, compared to four (7.1%) in the post test. There were three(5.4 %) nutritionists who obtained distinctions in pre test compared to 20(35.7%) nutritionists who obtained distinctions in the post test.

Table 6

Distribution of pre and post test scores of the nutritionists

Score	Pre- test		Post- test	
	No.	%	No.	%
<49	16	28.6	4	7.1
50-64	26	46.4	16	28.6
65-74.	11	19.6	16	28.6
75-100	3	5.4	20	35.7
Totals	56	100	56	100

Table 7

Distribution of pre and post test scores of the doctors.

Score	Pre- test		Post- test	
	No.	%	No.	%
<49	7	20.0	-	-
50 - 64	20	57.1	3	8.6
65 - 74	8	22.9	10	28.6
75- 100	-	-	22	62.9
Totals	35	100	35	100

Doctors performance in pre- and post- tests: The performance of the doctors in pre and post tests is shown in Table 7. There were seven (20.0%) doctors with a score of <49 in the pre test. For the post test, all improved such that none obtained this score. In addition, no doctor obtained a distinction in pre test, while 22 (62.9%) had distinctions in the post test.

DISCUSSION

This evaluation of the health professionals performance in pre- and post- test scores demonstrates that attendance of lactation management course can make a difference, in knowledge about lactation. There is significant gain from the mean pre- test (54.7%) which is a pass to the mean post- test score (72.0%) which is a credit. Seventy (30.6%) of health professionals entered the course with a score of < 49%, and only ten (4.4%) left the course with such scores. It is also noted that in the pre-test, there were five (5.0%) distinctions compared to 98 (42.9%) in the post- test.

The health professionals at course entry had a level of knowledge, which can be credited to their preservice training and professional experience. Their significant performance in the post test can be attributed to the lactation management education programme.

CONCLUSION

The performance of the health professionals in the pretest, emphasises the importance of strengthening the preservice lactation management education training, by integrating lactation topics into current medical curricula of nursing, medicine, nutrition, and other medical-related courses. It also reveals existence of gaps in knowledge about lactation. Integrating adequate lactation management education training is more sustainable, cost effective and increases the potential to reach large numbers of health professionals. In addition, this allows new medical graduates to be able to adequately support breastfeeding from the onset of their professional careers. The medical curricula at all levels require change in provision of adequate content of lactation management education to the student.

Further research in practices of breastfeeding and weaning, needs to be conducted continually to assess the effect of the trained health professionals on mothers. In addition, clinical practice evaluation of the health professionals on the management of lactation is important.

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